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## PRESENT STATUS OF STATISTICAL WORK AND HOW IT NEEDS TO BE DEVELOPED IN THE SERVICE OF THE STATES.\*

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It would be easy and perhaps natural to draw misleading inferences from a merely superficial examination of the available statistics descriptive of the status and progress of civilization in the several commonwealths of the United States. Much of the material is widely scattered and might not be discovered by the casual inquirer. Certain information could be found only in Federal reports; additional information is hidden away in departmental reports and seldom cited in bibliographies, and still other data are published only in legislative documents that go to a very small number of libraries and consequently escape the notice of all but a few special students or investigators. And yet so abundant is the statistical material in many of the more important commonwealths, that a competent investigator or compiler would find no serious difficulty in preparing a statistical abstract that would at least equal in extent and comprehensiveness, if not in accuracy, the statistical year-book of the German Empire or other manuals that are as favorably known. The researches of the Carnegie Institution have brought to light the great mass of economic materials existent in the public documents of commonwealths like New York and other Eastern states.† This material, gathered by the state departments and commissions and by legislative investigating committees, is almost as abundant if not so valuable as that contained in the British bluebooks,—the remarkable series of historical documents that justified Gustav Schmoller of the German historical school of economists in ranking England as one of the leaders of his school of thought. While important investigations are

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† *Index of Economic Material in Documents of the States of the United States: New York, 1789-1904.* Prepared by Adelaire R. Hasse, 1907.

not likely to escape the attention of the journals of the Statistical and Economic Associations, it remains true that much valuable work is not fully utilized or appreciated, because it remains unknown. Even the index of reports of bureaus of labor prepared and published by the Federal Bureau in 1892 and 1902 has been discontinued.

The most obvious if not the most important need of statistical work in the commonwealths would therefore seem to be a central bureau of statistics and information to collate and compile the statistical information already available, but at present more or less inaccessible. A step in the direction of a commonwealth statistical abstract may perhaps be recognized in the Legislative Manual prepared by the Secretary of the State or other officer for the use of the members of the Legislature and other state officials. Such a manual usually contains statistics of population, wealth (for purposes of taxation), and elections, and might readily be expanded so as to be made a complete statistical year-book, which would embody the final results of statistical research of the several state authorities, and also of the Federal bureaus so far as needed to supplement state activities. The movement toward such a central office of compilation and coördination must be initiated by the learned societies, libraries, and educational institutions, representing the individual consumers of the product. The legislature itself can command information on a special subject from the appropriate state department, and where such information is insufficient, can initiate a special inquiry of its own and for that reason can hardly be expected to take the necessary action unless pressed to it by public opinion.

This conception of a state bureau of statistics differs from the European idea of a central bureau in which is concentrated a large part of the statistical work of the state. The European idea does not commend itself to Americans, who believe that statistics of a special field should be prepared by the authority constituted to supervise that particular field. But it can hardly be doubted that a well organized and equipped office in charge of a general statistical abstract would have a stimulating effect upon the statistical work of the several

state departments. Above all, it would reveal the most serious gaps that might exist in the more general statistical information of the individual states.

A survey of the statistical activities of some of the principal commonwealths indicates that large portions of the field of economic statistics are already well cultivated. In Massachusetts, New York, Wisconsin, and other states we find much progress in the statistics of manufactures, mining, transportation, banking, and insurance. In the field of social statistics we also find much of encouragement in the work of departments of education, health, and charities, including hospitals for the insane. In all of these departments there are now to be found statistical offices that offer permanent careers to trained civil servants. The rapid spread of the movement for workmen's compensation acts also promises needed development in the long neglected field of industrial accidents and diseases.

But in most of the states of smaller resources, statistical work is still in a backward condition, and the same statement applies to certain of the states of large resources. Civil service reform has not yet taken root in all of the commonwealths and needs now, as much as it ever has needed, the support of members of the Statistical Association and other citizens interested in good statistical work. Permanency of tenure for civil servants seems to me perhaps the greatest single need of the states in the development of good statistical work as of other technical work. When we examine conditions underlying the statistical output of a leading state like Massachusetts, we are likely to find the largest single factor to be the long-continued service of bureau or division chiefs. These men may have entered the service without having qualified in competitive examinations, but they have retained their positions through successive administrations despite party changes and have acquired in office the necessary statistical training. To insist upon extensive statistical training as a prerequisite to employment in the statistical service does not seem to me to be necessary. While I have always favored a high standard of education and have in fact sometimes endeavored to set the standard as regards scholastic attain-

ments higher than the Civil Service Commission was willing to establish it, I have always sought to obtain men who had had indeed a good academic training, especially in economics, but had also demonstrated their ability to do original work, whether in statistics or any other field. A very considerable number of young men who entered the civil service of New York through such examinations in the past fifteen years now hold responsible positions in the statistical offices of the various state departments or of private corporations. It may be of interest incidentally to note that in this period the average salary of a statistician in the state service has increased 30 or 40 per cent. The time seems to be near at hand when the statistical service can offer as attractive inducements to young men of promise as does the law or engineering. This is especially true of work that combines accounting with statistics, for such a combination of experience is coming to be highly appreciated by the large corporations.

The movement for "efficiency and economy" in public business may be explained in part as an outgrowth of the efficiency engineering idea developed in private business, but it owes its origin in part at least to the work of organizations like the Bureau of Municipal Research, which is carried on by investigators trained in statistical as well as accounting methods. The movement is therefore to be recognized as one that should react favorably upon the statistical work of the commonwealths relating not to the transaction of public business (*e. g.*, the "budget") but to the recording of social and industrial phenomena of the entire body politic.

If accountancy is to be regarded as a branch of statistics, we must also grant recognition to the statistical work done by engineers, not only in the development of business efficiency but also in the development of public policy concerned with public service corporations. In the past decade, engineering firms have been called upon to make exhaustive studies of the street railway situation in several of our large cities and in their reports they have to a large extent applied the statistical method. An excellent example of such statistical work is afforded in the recent report of the Rapid Transit Commissioner of the City of Philadelphia. If work of like character has not

already been done for commonwealth governments, it may be looked for as a development of the early future. The need for special investigations of broader scope than those carried on by permanent bureaus or departments will from time to time bring about the establishment of special commissions that will require expert investigators, and it will be the duty of members of the Statistical Association to use their influence in favor of the adoption of the best methods of investigation on the part of such commissions. Three recent New York reports—on Industrial Accidents, Unemployment, and Factories—are excellent illustrations of the results that may be achieved by the combination of the regular staff of state bureaus and a staff of special investigators temporarily employed by the commissions. Such results would not have been attained had not members of this Association and similar societies, like the Economic Association and the Association for Labor Legislation, taken an active part in the movement for the establishment and organization of the commissions.

In the next few years there will in all probability be movements started in the different commonwealths for the reorganization of state departments which carry on more or less statistical work, and the statistical societies, it seems to me, should at such times coöperate actively with the profession most directly interested in such reorganizations. The New York City branch of the Association at a recent meeting voted to memorialize the city government in favor of the adoption of the recommendations of a special committee of medical men for a reorganization of the department of health, designed, among other things, to secure an improved system of registration of vital statistics. The lawyers in many states are now actively supporting a revision of judicial procedure, including among other things, better records of crimes and torts. The defects of our judicial statistics are nearly everywhere so serious that a reform movement of this kind should also enlist the coöperation of members of the statistical society.

It seems unnecessary to continue further in the enumeration of the special subjects that most need improved statistical methods. It should suffice to refer to the continued existence of a need, in the commonwealths as elsewhere, for the occa-

sional special commission as well as the permanent bureau, and the interdependence of the one upon the other. If the special commission can obtain from the permanent bureau statistical material of a high degree of accuracy and comprehensiveness, it will be able to carry its pioneer work along new lines so much the farther. And the higher its achievements in advancing the limits of our knowledge, the greater will be the effort of the permanent bureau to hold and maintain the advantage.